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REMARKS

This paper is responsive to an Official Action that issued in this case October 6, 2003. In that Action, the Office rejected the claims on several bases. In particular:

- Claims 1-4, 6, 7, and 14-17 were rejected under 35 USC §102 as being anticipated by the NIST Chemistry WebBook.
- Claims 1-8 were rejected under 35 USC 35 USC §102 as being obvious over admitted prior art.

With due respect, these rejections are not supportable. No claims have been amended; claims 20-25 have been added. Reconsideration is requested in view of the following remarks.

Background

In the prior art, each supplier or manufacturer of specialty chemicals establishes its own "standard" for each chemical that it sells. The standard is a set of chemical and physical properties that are used to describe the specialty chemical. To evaluate the variability that inevitably occurs in each batch of chemical produced, the supplier establishes a "specification." The specification is the nominal range for each chemical and physical characteristic that is listed in the standard. The specification typically includes an upper limit and a lower limit for each characteristic. Using the specification, each batch of chemical can be characterized as "in-specification" or "out-of-specification" as to each characteristic. (Spec. at p. 1, lines 15-27.)

Purchasers of specialty chemicals would prefer to have multiple sources from which to buy their specialty chemicals for a variety of reasons. But this is problematic since, in the prior-art, it is the supplier that sets the standard and specification for each chemical it sells. And the standards and specifications that are established by any one supplier for its products are almost always different from those established by other suppliers. So it is usually impossible to directly compare the specialty chemical offerings from different suppliers. (Spec, at p. 2, line 20 – p. 3, line 5.)

Some Embodiments of Applicant's Invention

The present invention is a data processing system and method for facilitating the sale of specialty chemicals.

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Some embodiments of the present invention establish a <u>uniform standard</u> for each specialty chemical that is being offered for sale of the data processing system. The term "uniform standard" is defined in the specification at p. 10, lines 12-14, to mean "a supplier-independent set of chemical characteristics or physical characteristics or both that are used to describe a chemical."

In some embodiments of the present invention, a <u>requirement</u> is established by a prospective purchaser of a specialty chemical. The term "requirement" is defined in the specification at p. 11, line 27 – p. 12, line 1, to mean, "for a specialty chemical of interest, allowed ranges (from a prospective purchaser's point of view) for the measured values of the various chemical and physical characteristics that make up the uniform standard." This "requirement" is analogous to the prior-art "specification," except that in accordance with the illustrative embodiment, it is the prospective purchaser, rather than the supplier, that defines the requirement (specification). (Spec. at p. 13, line 26 – p. 15, line 11.) The prospective purchaser can then use the requirement as a tool for evaluating various batches of specialty chemicals. But this is practical only if all batches under consideration are characterized by the uniform standard.

In this manner, the present invention benefits a prospective purchaser by facilitating a direct comparison of offerings from different suppliers.

In accordance with the illustrative embodiment, a sample of each batch of specialty chemical that is available for purchase through the data processing system is analyzed by an independent testing facility, in accordance with the *uniform standard* established for the chemical. The test results are input into the data processing system and, in some embodiments, are organized into an inventory database. A prospective purchaser patronizing the data processing system establishes the *requirement* for the specialty chemical that it wishes to purchase. After the prospective purchaser enters its requirement into the data processing system, the data processing system searches the inventory database in an attempt to identify batches of the specialty chemical for sale that satisfy the purchaser's requirement. If any batches of the specialty chemical are identified that satisfy the purchaser's requirement, then that is reported to the prospective purchaser so that it can purchase the batch through the data processing system.

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Claims 1-4, 6, 7, and 14-17 are not Anticipated by the NIST Chemistry WebBook

Independent claim 1 recites a method comprising:

receiving, at a data processing system, a requirement from a prospective purchaser for a first chemical;

comparing, in said data processing system, said requirement to analyses of batches of said first chemical that are available for purchase through said data processing system to identify a batch that satisfies said requirement; and

outputting, from said data processing system, an indicium of said identified batch to said prospective purchaser.

The limitations that are recited in these clauses are not disclosed, or even suggested by the NIST Chemistry WebBook, as alleged by the Office.

The NIST Chemistry WebBook is a web-based database of thermochemical, thermophysical, and ion energetics data that is compiled by the National Institute of Standards and Technology (NIST). The data comes from a variety of sources. According to the Guide to the NIST Chemistry WebBook, the WebBook is used to "search for data on specific compounds ... based on name, chemical formula" and the like.

As to the first clause of claim 1, the NIST Chemistry WebBook does not receive "a requirement from a prospective purchaser for a first chemical." Rather, the WebBook receives a request for data (e.g., heat capacity data, heat of sublimation data, etc.) concerning a specific compound.

As previously discussed, the term "requirement," as used in applicants' specification, means the allowed ranges (from a prospective purchaser's point of view) for the measured values of the various chemical and physical characteristics that make up the uniform standard for a specific specialty chemical. It is understood that the Office will use the broadest *reasonable* interpretation of a word in a claim. But an interpretation is *per se* not reasonable when a definition that is provided in the specification for a claim term is ignored when interpreting the claim. Simply put, a request for data is not a "requirement," as that term is defined by applicant.

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As to the second clause, the NIST Chemistry WebBook does not compare the requirement "to analyses of batches of said first chemical that are available for purchase through said data processing system to identify a batch that satisfies said requirement." The NIST WebBook simply finds that requested data.

As previously noted, no "requirement" is input to the WebBook. Furthermore, no chemicals are available for purchase through the NIST WebBook and, therefore, the WebBook does not include any "analyses of batches" of any such chemicals. Since there are no such "analyses" in the system, and no "requirement" is provided to the system, the NIST WebBook cannot perform the claimed "comparison" operation.

As to the third clause, the Chemistry WebBook does not output an indicium of the identified batch to said prospective purchaser. The Chemistry WebBook simply retrieves the requested property data for a specific compound.

Turning to the specifics of the Office's allegations, the Office states that the "WebBook identifies a chemical property database, compiled by a supplier-independent testing facility (NIST), which properties are obtained in accordance to a supplier independent standard (i.e. determined by NIST)."

It is true that the WebBook contains a chemical property database. It is true that the database is compiled by a supplier-independent facility, NIST, although NIST does very little actual test work (*i.e.*, the data is mostly from third-party sources). It is NOT true, however, that the properties are obtained in accordance with a single (uniform) standard, and, therefore, it is NOT true that NIST determined the standard.

The term "requirement" that appears in claim 1 refers to the nominal range of variation in at least some characteristics of a "uniform standard." And while there are no analyses of batches of chemicals that are available for purchase on the WebBook, it is noted that even the data that composes the WebBook database does not adhere to a single standard.

For example, as noted in the "Frequently Asked Questions" section of the Chemistry WebBook, in response to the query "What atomic weight values are used in the data?," it states that "The atomic weights used in the data are those used by the original authors. The molecular weights displayed are computed using the 1993 IUPAC atomic weights." Considering the large number of contributing sources of data for the Chemistry WebBook, there are likely to be many discrepancies as to "standards" other

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than atomic weights, including, for example, differences in testing procedures, calculations methods, *etc.*, between the third-party sources. Consequently, the NIST Chemistry WebBook "properties are [NOT] obtained in accordance to a supplier independent standard." But that is neither "here nor there," since the NIST Chemistry WebBook is not relevant to applicants' invention.

Applicant notes the Office's use of the term "supplier independent standard" in it's characterization of the WebBook. While the "uniform standard" that is relevant to applicant's invention is advantageously "supplier independent," the key characteristic of the standard is its uniformity. So, while much (and maybe all) of the data on the WebBook is "supplier independent" [indeed, the WebBook has nothing to do with the sale of chemicals], it is not necessarily uniform.

The Office states that the NIST database is searchable, and alleges that this searchability "inherently discloses the presently recited steps of receiving a requirement into the data processing system in the form of a search request, and outputting an indicium of an identified batch in the form of a search result." Again, in view of the specified meaning of the term "requirement," the phrase "search request" does not disclose or suggest the claimed operation of "receiving a requirement." And returning a "search result" does not disclose or suggest the claimed operation of "outputting ... an indicium" of a batch of speciality chemical that is available for sale and that satisfies the "requirement."

In view of the foregoing, claim 1 is allowable over the NIST Chemistry WebBook. Claims 2-8 are likewise allowable due to their dependence on claim 1. Additional limitations that are recited in claims 2-8 provide an independent basis for the patentability of those claims. The Office is therefore requested to withdraw its Section 102 rejection of claims 1-4, 6 and 7 over the NIST chemistry WebBook.

Independent claim 14 recites a method comprising:

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outputting, from a data processing system, a uniform standard for a chemical, said uniform standard defined by a supplier-independent set of physical and chemical characteristics of said chemical; and

receiving, at said data processing system, a requirement from a prospective purchaser for said chemical, said requirement comprising an allowable range of values for at least some of said physical and chemical characteristics that define said uniform standard.

In view of the previous discussion of the terms "uniform standard" and "requirement," it will be clear that the NIST Chemistry WebBook does not disclose or suggest "outputting ... a uniform standard for a chemical," nor "receiving ... a requirement from a prospective purchaser for said chemical." Consequently, claim 14 is allowable over the NIST Chemistry WebBook. Claims 15-17 are likewise allowable due to their dependence on claim 14. The additional limitations in claims 15-17 provide an independent basis for patentability. The Office is therefore requested to withdraw its rejection of claims 14-17.

Claims 1-8 are not Obvious

In view of Admitted Prior Art

The Office alleges that applicant admits, as known, a method comprising:

- 1. Evaluation by a supplier of a chemical batch in accordance with a standard and specification for that chemical.
- 2. Receiving a requirement or request from a prospective purchaser.
- 3. Comparing the requirement to the previously attained analysis to accommodate the request.

The Office suggests that this allegedly "conventional" method differs from claim 1 only in that the step of comparing the purchaser request to inventory analysis is to be performed by a data processing system. The Office states that the provision of generic automated means for the purpose of performing a known step otherwise performed by hand is considered obvious.

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Applicants agree that the provision of generic automated means for the purpose of performing a known step otherwise performed by hand is obvious. But the applicants disagree with all the other statements.

What the applicants have admitted as prior art is that:

- A supplier establishes a standard for each specialty chemical that it sells. The standard is a set of chemical and physical characteristics that are used to describe that specialty chemical.
- The supplier establishes a specification for each specialty chemical that it sells. The specification is the nominal range for each chemical and physical characteristic listed in the standard.
- The supplier evaluates each batch of chemical it makes in accordance with the standard and relative to the specification.

In the prior art, a prospective purchaser approaches a supplier and purchases a specialty chemical from one or more batches that are available. In the prior art, the <u>prospective purchaser</u> does NOT provide a "requirement;" rather, the <u>supplier</u> provides a "specification." Consequently, in the prior art, a batch of chemical is simply "inspecification" or "out-of-specification" on each of the characteristics that define the standard. The prospective purchaser then either purchases the batch or not. Explicit in the definition of "requirement" is the notion of a uniform standard. There is no uniform standard in the prior art; each supplier establishes its own standard.

Distinctions as to:

- who develops the specification (requirement) the supplier or prospective purchaser; and
- a supplier-dependent standard versus a generic standard ...

... are not mere semantics. It is this lack of a uniform standard and a purchaser-defined specification in the prior art that thwarts a prospective purchaser from comparing offerings of a specific specialty chemical from multiple suppliers. In contrast, in accordance with some embodiments of the invention, it is the uniform standard, and the purchaser-defined requirement (specification), which enables a prospective purchaser, with the aid of the data processing system, to select a batch of chemical that best meets its requirements. And the use of claimed method creates other incentives for both suppliers and purchasers, as described in the specification.

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There is nothing in the admitted prior art that suggests or would otherwise motivate one skilled in the art to practice the method recited in claim 1. Consequently, claim 1 is allowable over the admitted prior art. Claims 2-8 are allowable based on their dependence on claim 1. Additional limitations that are recited in claims 2-8 provide a further basis for the patentability. The Office is therefore requested to withdraw its Section 103 rejections of claims 1-8.

New Claims 20-25 are Allowable over the Art of Record

New claim 20 includes the limitations of claim 1 as well an additional limitation that the batches of the first chemical that are available for purchase through the data processing system are sourced from at least two different suppliers. This is not disclosed or suggested in the art of record. Consequently, claim 20 is allowable over the art of record. Claims 21-25 are allowable based on their dependence on claim 25. Additional limitations that are recited in claims 22-25 provide a further basis for patentability.

Conclusion

It is believed that claims 1-8, 14-17, and 20-25 now presented for examination are allowable over the art of record. A notice to that effect is therefore solicited.

Respectfully,

DeMont & Breyer, LLC

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Wayne S. Breyer Reg. No. 38089

Attorney for Applicants

732-578-0103 x12

DeMont & Breyer, L.L.C. Suite 250 100 Commons Way Holmdel, NJ 07733 United States of America